

REMARKS

Applicant has reviewed the Final Office Action mailed on May 5, 2004 as well as the art cited. Claims 31-40 are pending in this application.

Rejections Under 35 U.S.C. § 103

Claims 31 and 34-35 were rejected under 35 USC § 103(a) as being unpatentable over Burroughs et al. (U.S. Publication No. 2002/144284) in view of Safadi (U.S. Patent No. 5,892,910).

Claims 36-38 were rejected under 35 USC § 103(a) as being unpatentable over Burroughs et al. (U.S. Publication No. 2002/144284) in view of Safadi (U.S. Patent No. 5,892,910) and Parsons (U.S. Patent No. 3,999,171).

Applicant respectfully traverses these rejections.

To establish a case of prima facie obviousness, three basic criteria must be met:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based in the applicant's disclosure. In re vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir 1991). MPEP § 2143 - § 2143.03.

Claim 31

Claim 31 is directed to a method of "providing redundancy in a cable modem termination system (CMTS)". The method includes "passing communications through a directional coupler to a primary CMTS transceiver during a first operation mode". The method further includes

“passing the communications through the directional coupler to a backup CMTS transceiver during a second operation mode”.

With regard to claim 31, the Examiner states that “[Burroughs] discloses in figure 1 a method of providing redundancy in a cable modem termination system (CMTS) (103-1 ... 103-N) comprising: passing communications through a combiner (107) to a primary CMTS transceiver (primary CMTS) (paragraph [0022] teaches the CMTS receivers from the various cable modems, and paragraph [0028] teaches the cable modem first communicates with the primary transceiver) during a first operation mode (normal mode of the primary CMTS transceiver); and passing the communications through the combiner to a backup CMTS receiver (the alternate CMTS transceiver) during a second operation mode (failure mode of the primary CMTS transceiver) (the alternate CMTS transceiver acts as a backup transceiver in the event of a failure of the primary transceiver; see abstract, paragraphs [0031]-[0034] and [0042]).”

The Examiner correctly asserts that “Burroughs et al. does not disclose the combiner is a directional coupler.” However, Examiner further asserts that “Safadi discloses that a RF combiner 35 is 12-way combiner/splitter, it may be used to merge signals from up to 12 channels or to distribute a signal to 12 outputs. The RF combiner 35 employs directional coupler circuitry to attain high channel isolation for protection from channel to channel interference (see col. 8, line 61 to col. 9, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace combiner 107 of Burroughs with a directional coupler (RF combiner 35) of Safadi for the purpose of preventing the interference between the signals.” The Examiner went on to state that “it is noted that a directional coupler is a device that combines or splits RF signals according to its standard definition. Thus, the RF combiner 35 in the Safadi reference is clearly a directional coupler since it combines signals from up to 12 inputs or splits a single signal to 12 outputs. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace combiner 107 of Burroughs with a directional coupler (RF combiner 35) of Safadi for the purpose of preventing interference between the signals.”

Applicant respectfully traverses the Examiner’s assertions.

As discussed in Applicant's previous Amendment and Response, Applicant again respectfully asserts that the combination of Burroughs and Safadi does not teach or suggest each element of claim 31. Burroughs et. al. does not disclose the combiner is a directional coupler and further does not teach or suggest "passing communications through a directional coupler" as found in claim 31. The addition of Safadi does not overcome the deficiency of Burroughs. Safadi discusses the use of an RF combiner 35 which "employs directional coupler circuitry to attain high channel isolation for protection from channel to channel interference," (col. 8, lines 64-66). Thus, Safadi does not teach "passing communications through a directional coupler," as found in claim 31. Therefore, Applicant again respectfully requests the withdrawal of the rejection of claim 31 under 35 USC §103(a).

Moreover, Applicant further asserts there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. First, as the Examiner acknowledges, Burroughs et. al. does not disclose the combiner is a directional coupler and further does not teach or suggest passing communications through a directional coupler as found in claim 31. Next, Safadi discusses "an adaptive protocol for remotely upgrading communicating nodes without interrupting system operation" for a cable television communication system (Abstract). Further, Safadi discusses an RF combiner 35 which "employs directional coupler circuitry to attain high channel isolation for protection from channel to channel interference," (col. 8, lines 64-66). Claim 31, however, employs the use of a directional coupler to teach a method of providing redundancy in a cable modem termination system. Thus, Safadi's use of a combiner with directional coupler circuitry has no relation to Applicant's invention. Therefore, there is no suggestion or motivation to combine the teachings of Safadi to the teachings of Burroughs. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 31 under 35 U.S.C. §103(a).

Claims 32-34 depend either directly or indirectly from allowable claim 31 and for at least the reasons provided above, should also be allowed. Since the Applicant believes, Claims 32-34 are allowable for the above reasons, Applicant may not have put forth responses to additional rejections to said claim at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Claim 35

Claim 35 is directed to a method of “operating a cable modem termination system (CMTS)”. The method includes “communicating with one or more primary CMTS transceivers across a primary signal path during a first operation mode”. Further, “each primary CMTS transceiver has one or more upstream communication ports for communication with subscriber equipment and one or more downstream communication ports for communication with a head end”. This method also employs the use of a directional coupler that is “connected between each upstream communication port and the subscriber equipment and between each downstream communication port and the head end”. This method also comprises “detecting a failure of one of the primary CMTS transceivers and entering a second operation mode wherein communication with the failed primary CMTS transceiver is routed through a backup CMTS transceiver through the directional couplers associated with the failed primary CMTS transceiver”.

Again the Examiner relies on the combination of Burroughs and Safadi in rejecting claim 35. Applicant respectfully asserts that the combination of Burroughs and Safadi does not teach or suggest each element of claim 35. Applicant further asserts that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Applicant respectfully traverses this assertion for at least the reasons provided above with respect to claim 31. Thus, Applicant respectfully requests the withdrawal of the rejection of claim 35 under 35 U.S.C. §103(a).

Claims 36-40 depend either directly or indirectly from allowable claim 35 and for at least the reasons provided above, should also be allowed. Since the Applicant believes, Claims 36-40 are allowable for the above reasons, Applicant may not have put forth responses to additional rejections to said claim at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Allowable Subject Matter

Applicant thanks the Examiner for the indication that claims 32-33 and 39-40 would be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims.

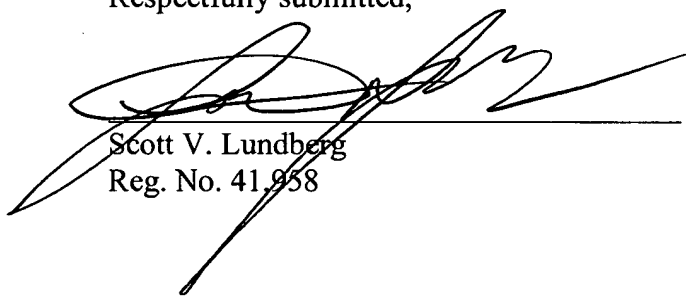
CONCLUSION

Applicant respectfully submits that claims 31-40 are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 332-4720.

Respectfully submitted,

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